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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,154	12/08/2004	Kia Silverbrook	YU174US	6664

24011 7590 06/04/2007
SILVERBROOK RESEARCH PTY LTD
393 DARLING STREET
BALMAIN, 2041
AUSTRALIA

EXAMINER	
STEVENOSKY, MARK J	

ART UNIT	PAPER NUMBER
2853	

MAIL DATE	DELIVERY MODE
06/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/510,154	SILVERBROOK, KIA	
	Examiner	Art Unit	
	Mark John Stevenosky, Jr.	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after t he mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 October 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 October 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claims 1-11 rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-11 of prior U.S. Patent No. 6,582,059. This is a double patenting rejection.

10/510154 (instant application)	US 6,582,059
1. A printhead chip for an inkjet printhead, the printhead chip comprising a substrate; and a plurality of nozzle arrangements that is positioned on the substrate, each nozzle arrangement comprising nozzle chamber walls positioned on the substrate and a roof that define a nozzle chamber with the roof defining an ink ejection port in fluid	1. A printhead chip for an inkjet printhead, the printhead chip comprising a substrate; and a plurality of nozzle arrangements that is positioned on the substrate, each nozzle arrangement comprising nozzle chamber walls positioned on the substrate and a roof that define a nozzle chamber with the roof defining an ink ejection port in fluid

communication with the nozzle chamber, an ink-ejecting member that is positioned in the nozzle chamber, the ink-ejecting member being displaceable towards and away from the ink ejection port so that a resultant fluctuation in ink pressure within the nozzle chamber results in an ejection of ink from the ink ejection port; at least one work-transmitting structure that is displaceable with respect to the substrate and is connected to the ink-ejecting member so that displacement of the work transmitting structure results in displacement of the ink-ejecting member; an actuator that is connected to the work-transmitting structure, the actuator being capable of displacing the work transmitting structure upon receipt of an electrical drive signal; and air chamber walls and a covering formation that is positioned over the actuator, the air chamber walls and the covering formation defining an air chamber	communication with the nozzle chamber; an ink-ejecting member that is positioned in the nozzle chamber, the ink-ejecting member being displaceable towards and away from the ink-ejection port so that a resultant fluctuation in ink pressure within the nozzle chamber results in an ejection of ink from the ink ejection port; at least one work-transmitting structure that is displaceable with respect to the substrate and is connected to the ink-ejecting member so that displacement of the work transmitting structure results in displacement of the ink-ejecting member; an actuator that is connected to the work-transmitting structure, the actuator being capable of displacing the work transmitting structure upon receipt of an electrical drive signal; and air chamber walls and a covering formation that is positioned over the actuator, the air chamber walls and the covering formation defining an air chamber

in which the actuator is positioned, the roof, the work transmitting structure and the covering formation together defining a protective structure positioned in a common plane.	in which the actuator is positioned, the roof, the work transmitting structure and the covering formation together defining a protective structure positioned in a common plane.
2. A printhead chip as claimed in claim 1, which is the product of an integrated circuit fabrication technique.	2. A printhead chip as claimed in claim 1, which is the product of an integrated circuit fabrication technique.
3. A printhead chip as claimed in claim 2, in which the substrate includes a silicon wafer substrate, a CMOS drive circuitry layer positioned on the silicon wafer substrate and an ink passivation layer positioned on the CMOS drive circuitry layer.	3. A printhead chip as claimed in claim 2, in which the substrate includes a silicon wafer substrate, a CMOS drive circuitry layer positioned on the silicon wafer substrate and an ink passivation layer positioned on the CMOS drive circuitry layer.
4. A printhead chip as claimed in claim 3, in which a plurality of ink inlet channels are defined through the substrate, with each ink inlet channel opening into a respective	4. A printhead chip as claimed in claim 3, in which a plurality of ink inlet channels are defined through the substrate, with each ink inlet channel opening into a respective

nozzle chamber.	nozzle chamber.
5. A printhead chip as claimed in claim 4, in which the roof, the work transmitting structure and the covering formation are configured so that the protective structure is unitary.	5. A printhead chip as claimed in claim 4, in which the roof, the work transmitting structure and the covering formation are configured so that the protective structure is unitary.
6. A printhead chip as claimed in claim 3, in which the nozzle chamber walls are configured so that the nozzle chamber is generally rectangular in plan view, with the nozzle chamber walls including a pair of opposed sidewalls, a distal end wall and a proximal end wall.	6. A printhead chip as claimed in claim 3, in which the nozzle chamber walls are configured so that the nozzle chamber is generally rectangular in plan view, with the nozzle chamber walls including a pair of opposed sidewalls, a distal end wall and a proximal end wall.
7. A printhead chip as claimed in claim 6, in which the work-transmitting structure is pivotally mounted with respect to the substrate to define at least part of the proximal end wall, the work transmitting structure being connected to a proximal	7. A printhead chip as claimed in claim 6, in which the work-transmitting structure is pivotally mounted with respect to the substrate to define at least part of the proximal end wall, the work transmitting structure being connected to a proximal

end of the ink-ejecting member so that the ink-ejecting member is angularly displaced towards and away from the ink ejection port upon pivotal displacement of the work-transmitting structure relative to the substrate.	end of the ink-ejecting member so that the ink-ejecting member is angularly displaced towards and away from the ink ejection port upon pivotal displacement of the work-transmitting structure relative to the substrate.
8. A printhead chip as claimed in claim 7, in which the actuator has a fixed end that is fixed with respect to the substrate and a working end that is displaceable towards and away from the substrate, the working end being connected to the work-transmitting structure such that the work-transmitting structure is pivotally displaced upon displacement of the actuator towards and away from the substrate with the result that the ink-ejecting member is angularly displaced towards and away from the ink ejection port.	8. A printhead chip as claimed in claim 7, in which the actuator has a fixed end that is fixed with respect to the substrate and a working end that is displaceable towards and away from the substrate, the working end being connected to the work-transmitting structure such that the work-transmitting structure is pivotally displaced upon displacement of the actuator towards and away from the substrate with the result that the ink-ejecting member is angularly displaced towards and away from the ink ejection port.
9. A printhead chip as claimed in claim 8,	9. A printhead chip as claimed in claim 8,

in which the actuator is in the form of a thermal bend actuator that is configured so that, on receipt of a driving signal from the electrical drive circuitry layer, the actuator bends towards the substrate, with the result that the work-transmitting structure pivots away from the nozzle chamber and the ink-ejecting member is angularly displaced towards the ink ejection port.	in which the actuator is in the form of a thermal bend actuator that is configured so that, on receipt of a driving signal from the electrical drive circuitry layer, the actuator bends towards the substrate, with;the result that the work-transmitting structure pivots away from the nozzle chamber and the ink-ejecting member is angularly displaced towards the ink ejection port.
10. A printhead chip as claimed in claim 9, in which the work-transmitting structure defines a lever mechanism with an effort formation connected to the working end of the actuator, a load formation connected to the ink-ejecting member, a fulcrum formation interposed between the effort formation and the load formation and pivotally connected to the substrate and a lever arm formation interconnecting the effort, fulcrum and load formations, the lever arm formation defining an integral	10. A printhead chip as claimed in claim 9, in which the work-transmitting structure defines a lever mechanism with an effort formation connected to the working end of the actuator, a load formation connected to the ink-ejecting member, a fulcrum formation interposed between the effort formation and the load formation and pivotally connected to the substrate and a lever arm formation interconnecting the effort, fulcrum and load formations, the lever arm formation defining an integral

part of the protective structure, the roof, the lever arm formation and the cover formation being of a flexible material to permit the lever arm formation to pivot with respect to the roof and the cover formation.	part of the protective structure, the roof, the lever arm formation and the cover formation being of a flexible material to permit the lever arm formation to pivot with respect to the roof and the cover formation.
11. An ink jet printhead that includes at least one printhead chip as claimed in claim 1.	11. An ink jet printhead that includes at least one printhead chip as claimed in claim 1.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark John Stevenosky, Jr. whose telephone number is (571) 270-1336. The examiner can normally be reached on Monday-Friday 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Mark John Stevenosky, Jr.
Examiner
Art Unit 2853

5/25/2007

5/29/07

MANISH S. SHAH
PRIMARY EXAMINER